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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,110	10/21/2003	Mario Wanninger	5367-46	5357

7590 10/23/2006

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EXAMINER	
RUDE, TIMOTHY L	

ART UNIT	PAPER NUMBER
2871	

DATE MAILED: 10/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/690,110	WANNINGER, MARIO	
	Examiner	Art Unit	
	Timothy L. Rude	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-14* is/are pending in the application.

4a) Of the above claim(s) *5* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4 and 6-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10 July 2006 and 31 July 2006 have been entered.

Claims

2. Claims 1 and 6 are amended.

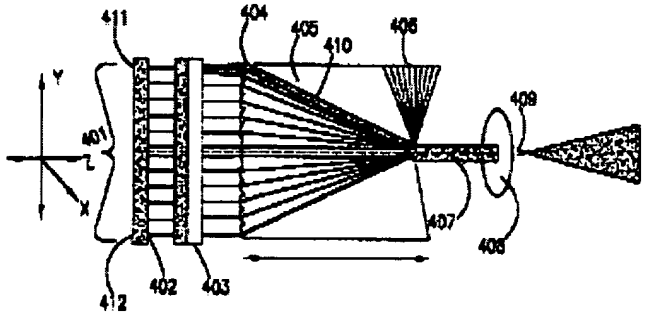
Claim Rejections - 35 USC § 103

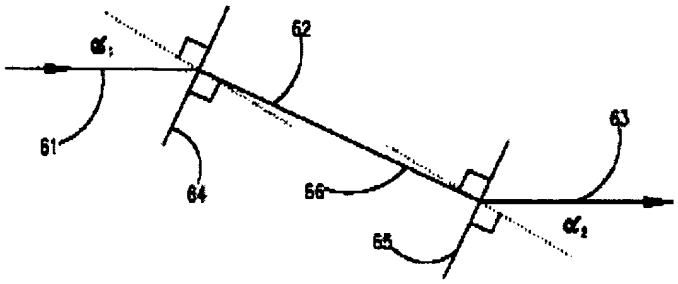
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

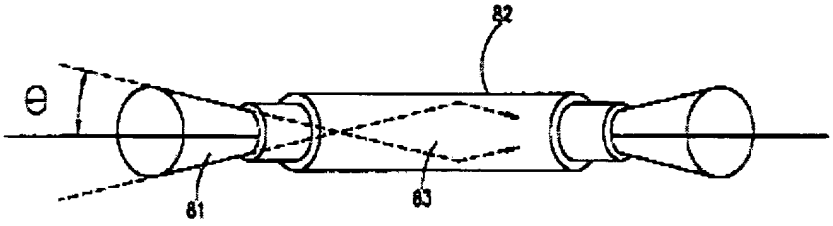
> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 4, 6, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neuberger et al (Neuberger) USPAT 6,005,717 in view of Ota et al (Ota) USPAT 6,950,573 B2.

As to claims 1, Neuberger discloses a coupling-in device for light from a plurality of light sources into an optical waveguide, wherein the coupling-in device has a plurality of focussing optics, 404, for the light from the various light sources [abstract, entire patent], wherein the optical waveguide has a coupling-in area (curve shaped end of fiber below 405), which is likewise formed (Applicant's curved) in focussing fashion.



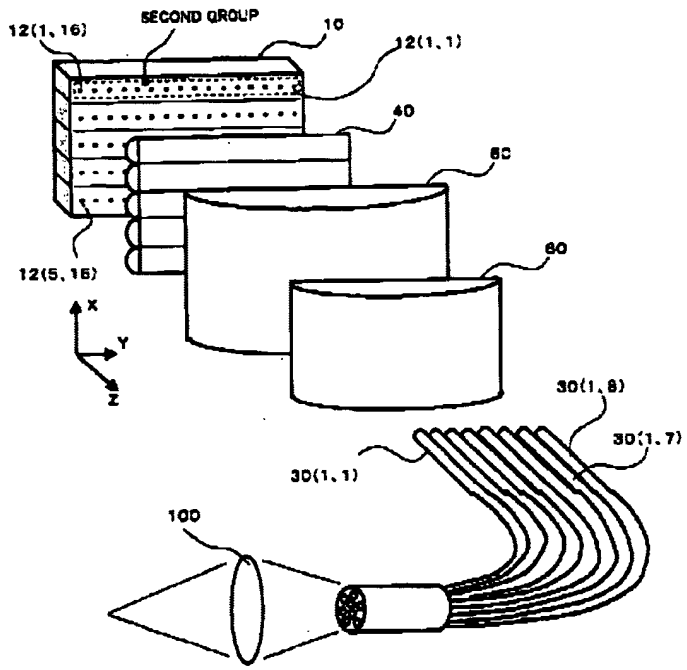




Neuberger does not explicitly disclose a device wherein all of the light is coupled in via a coupling-in area that constitutes a single curved region that covers the entire end of the optical waveguide.

Ota teaches the use of a device [Figure 1 and col. 2, lines 32-40] having a single curved region, 60, to provide more efficient coupling with better reduction to practice (easier to manufacture).

FIG. 1



Ota is evidence that workers of ordinary skill in the art would find the reason, suggestion, or motivation to add a coupling-in area that constitutes a single curved region that covers the entire end of the optical waveguide to provide more efficient coupling with better reduction to practice (easier to manufacture).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Neuberger with the a coupling-in area that constitutes a single curved region that covers the entire end of the optical waveguide to provide a device that is more efficient while being easier to manufacture.

As to claim 2, Neuberger discloses the coupling-in device as claimed in claim 1, wherein a focussing optic is formed for each light source.

As to claim 4, Neuberger discloses the coupling-in device as claimed in claim 1, wherein the geometry of the coupling-in area and the arrangement of the focussing optics are co-ordinated with the respective light source and the diameter of the optical waveguide [inherent to perform properly, please note co-ordinated does not ensure perfect co-ordination].

As to claim 6, Neuberger discloses the coupling-in device as claimed in claim 4, wherein the focussing optics are spaced apart from the coupling-in area.

As to claim 9, Neuberger discloses the coupling-in device as claimed in claim 1, wherein LEDs [laser diodes, Abstract] arranged directly on the focussing optics are used as light sources.

As to claim 10, Neuberger discloses the coupling-in device as claimed in claim 1, wherein the geometry of the coupling-in device and the arrangement of the light sources are co-ordinated with one another in such a way as to minimize the losses occurring between emission of the light and entry into the actual optical waveguide [inherent to perform properly, please note co-ordinated does not ensure perfect co-ordination and minimize does not ensure total minimization].

4. Claims 7-8, 11, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neuberger in view of Ota, as applied to claims above, and further in view of Ullman et al (Ullman) USPAT 6,771,686 B1.

As to claims 7-8, 11, and 14, Neuberger in view of Ota disclose the coupling-in device as claimed in claim 4.

Neuberger does not explicitly disclose a device wherein the focussing optics and the coupling-in area are produced in one piece.

Ullman teaches that correction optics may be formed in a number of ways to include one piece or monolithically [col. 2, lines 40-52] to eliminate nonconformities to thereby improve focus quality.

Ullman is evidence that workers of ordinary skill in the art would find the reason, suggestion, or motivation to add one piece or monolithically formed optical compensation unit to eliminate nonconformities to thereby improve focus quality.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Neuberger with a one piece or monolithically formed optical compensation unit of Ullman to eliminate nonconformities to thereby improve focus quality.

Please note that examiner considers the teaching of Ullman to render the following recitations wherein said coupling-in device is produced from transparent plastic in an injection moulding method (claim 8), wherein the coupling-in device is provided with a stem (claim 11), and wherein the diameter of the stem corresponds to

the diameter of an optical waveguide which is attached to the stem obvious to one of ordinary skill in the art given the teaching to form the optics monolithically, e.g., clear plastic injection molded with stem to mate with fiber optic.

5. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neuberger in view of Ota, as applied to claim 1 above, and further in view of Tulip USPAT 5,386,431.

As to claims 12-13. Neuberger in view of Ota disclose the coupling-in device as claimed in claim 1.

Neuberger does not explicitly disclose a device wherein the coupling-in area and/or focusing optics are arranged in circle-like fashion and wherein the coupling-in area and/or focusing optics are arranged around the end of the stem.

Tulip teaches that the laser array may be a cylindrical array [Applicant's around the end of the stem; col. 9, lines 1-17] to achieve a co-phasal laser array with high power [col. 1, line 40 through col. 2, line 8].

Tulip is evidence that workers of ordinary skill in the art would find the reason, suggestion, or motivation to add coupling-in area and/or focusing optics are arranged in circle-like fashion and wherein the coupling-in area and/or focusing optics are arranged around the end of the stem to achieve a co-phasal laser array with high power.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Neuberger with the coupling-in area and/or focusing optics are arranged in circle-like fashion and wherein the coupling-in area and/or focusing optics are arranged around the end of the stem of Tulip to achieve a co-phasal laser array with high power.

Response to Arguments

Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

Any references cited but not applied are relevant to the instant Application.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L. Rude whose telephone number is (571) 272-2301. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Timothy L Rude
Examiner
Art Unit 2871

tlr

ANDREW SCHECHTER
PRIMARY EXAMINER